



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5 CHICAGO REGIONAL LABORATORY  
536 SOUTH CLARK STREET  
CHICAGO, ILLINOIS 60605



Date: 11/1/2013  
Subject: Review of Region 5 Data for Veolia, Sauget, IL.  
From: Colin Breslin, Chemist  
Region 5 Chicago Regional Laboratory CB  
To: RCRA, LCD, US EPA Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604

The data being transmitted under this cover memo successfully passed CRL's internal data review procedures as documented in our current Quality Management Plan (QMP) and appropriate Standard Operating Procedures (SOPs). Please be aware that CRL does not perform data validation which is based on your data quality objectives. This function must be performed independently of the laboratory generating the data.

Results in this report represent only the samples analyzed.

Please have the U.S. EPA Project Manager/Officer call the CRL Sample Coordinator at (312) 353-0375 for any comments or questions.

Attached are Results for: Veolia, Sauget, IL.

\_\_\_\_\_  
Data Management Coordinator and Date Received

Date Transmitted: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Analyses included in this report:**

Hg Total CVAA



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone: (312) 353-8370 Fax: (312) 886-2591



RCRA, LCD, US EPA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: Veolia, Sauget, IL.  
Project Number: [none]  
Project Manager: Todd Ramaly

Reported:  
Nov-01-13 12:26

## Analysis Case Narrative

### General Information

Two water samples for the analysis of total mercury by cold vapor atomic absorption (CVAA) were received at the Chicago Regional Laboratory (CRL) on August 28, 2013. All samples were analyzed within the 28 day hold time. The designated analyst, Colin Breslin, can be reached at 312-886-2912.

### Sample Analysis and Results

The samples were prepared and analyzed according to CRL SOP AIG044B, Revision No: 1.0 (EPA 245.1) and an approved CRL Pen&Ink Change (Reference No: AIG044-PI01), which incorporates into CRL SOP AIG044B the requirements of the most currently approved version of reference method, EPA 245.1 Revision 3.0.

Sample 1308010-01 (Spike 01) required a dilution factor of 400,000 to fall within instrument calibration range. The dilution corrected result, reported in units of  $\mu\text{g/L}$  (ppb), was 2,220,000  $\mu\text{g/L}$  total mercury, which converted to units of  $\text{mg/L}$  (ppm) was equivalent to 2,220  $\text{mg/L}$  total mercury.

Sample 1308010-02 (Spike 02) required a dilution factor of 4,000,000 to fall within instrument calibration range. The dilution corrected result, reported in units of  $\mu\text{g/L}$  (ppb), was 21,500,000  $\mu\text{g/L}$  total mercury, which converted to units of  $\text{mg/L}$  (ppm) was equivalent to 21,500  $\text{mg/L}$  total mercury.

### Quality Control

All Quality Control (QC) audits were within CRL limits for the requested analytes or did not result in qualification of the data.

#### Matrix Spike:

The matrix spike required dilution to fall within instrument calibration range. After dilution correction, the calculated recovery was outside of the acceptable QC limits of 70-130%. The sample results were reported without data flags because the matrix spike level was diluted to near the reporting limit level, where uncertainty is inherently greater. No significant impact was expected for the overall data set from this QC excursion.

CB 11/01/13

Colin Breslin, Chemist



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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Spike 01	1308010-01	Water	Aug-27-13 13:00	Aug-28-13 08:30
Spike 02	1308010-02	Water	Aug-27-13 13:10	Aug-28-13 08:30

**Mercury by Cold Vapor, EPA Method 245.1 (modified)**

**US EPA Region 5 Chicago Regional Laboratory**

**Spike 01 (1308010-01) Water** Sampled: Aug-27-13 13:00 Received: Aug-28-13 08:30

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	2220000			200000	ug/L	400000	B309031	Sep-05-13	Sep-06-13

**Spike 02 (1308010-02) Water** Sampled: Aug-27-13 13:10 Received: Aug-28-13 08:30

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	21500000			2000000	ug/L	4000000	B309031	Sep-05-13	Sep-06-13

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**Notes and Definitions**

U Not Detected

NR Not Reported

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### Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Default Report (not modified) VERSION 6.12:2003
B309031-MS1	Hg Total CVAA	Mercury	Exceeds upper control limit
B309031-MS1	Hg Total CVAA	Mercury	Spike less than MDL

CB 11/01/13

# Sample, Log and Extraction Comments

1308010-01

Hg Total CVAA

pH = 0

pH = 0

1308010-02

Hg Total CVAA

pH = 0

pH = 0

CB 11/01/13